

CLAIMS:

1. A method of manufacturing an ultrasound transducer (60), which method includes a step of forming a plate which is shaped as a disc (20) of a composite piezoelectric material into a hollow spherical cap (26), characterized in that the step of forming is preceded by a cutting step which consists in the formation of at least one slit (70) which has a radial orientation and extends from the peripheral edge (72) of the disc (20) towards its center (C) in such a manner that, after the step of forming, the two facing, oppositely situated free edges (74, 76) which bound the slit (70) are substantially in contact with one another so as to minimize the internal stresses in the cap (26) which are caused notably by its deformation.
2. A method of manufacturing as claimed in the preceding claim, characterized in that at least one slit extends radially partly along a radius of the disc.
3. A method of manufacturing as claimed in one of the claims 1 or 2, characterized in that at least one slit (70) extends radially as far as the center (C) of the disc (20).
4. A method of manufacturing as claimed in the preceding claim, characterized in that at least two slits (70) extend radially as far as the center (C) of the disc (20) in such a manner that the disc is separated into at least two distinct portions.
5. A method of manufacturing as claimed in any one of the preceding claims, characterized in that the facing, oppositely situated free edges (74, 76) have a radial orientation in such a manner that the corresponding slit (70) forms a V whose apex is oriented towards the center (C) of the disc (20).
6. A method of manufacturing as claimed in the preceding claim, characterized in that the oppositely situated free edges (74, 76) are curved and convex, their convexity being opposed.

7. A method of manufacturing as claimed in any one of the preceding claims, characterized in that the disc (20) comprises a series of slits (70) which are angularly distributed in a regular fashion so as to define substantially identical angular sectors (78).

5 8. A method as claimed in any one of the preceding claims, characterized in that adhesive is introduced into the slit (70) in such a manner that, after the step of forming, the oppositely situated free edges (74, 76) are glued to one another.

9. A method as claimed in the preceding claim, characterized in that the adhesive
10 is an electrically insulating adhesive.

10. A method of manufacturing as claimed in any one of the preceding claims, characterized in that during the step of forming the composite piezoelectric material is heated so as to soften it, after which it is cooled so as to fix its dimensions.

11. An ultrasound transducer (60) in the form of a hollow spherical cap (26), manufactured in conformity with any one of the preceding claims, characterized in that it comprises at least one slit (70) having a radial orientation.

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